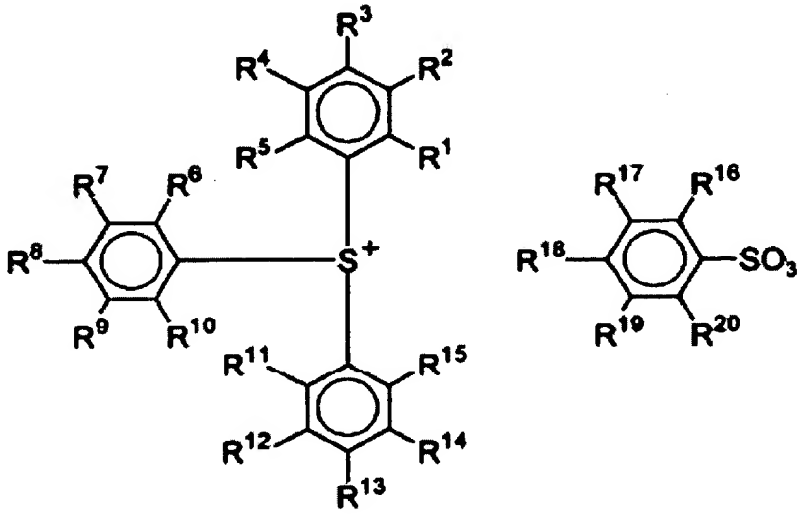
IN THE CLAIMS

1. (Currently Amended) A positive-tone radiation-sensitive resin composition comprising:

(A) a photoacid generator which is a compound comprising a structure shown by the following formula (1-a) and a structure shown by the following formula (1-b),

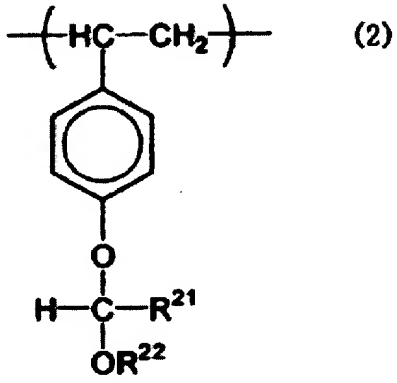


(1-a) (1-b)

wherein the groups R^1 to R^{15} individually represent a hydrogen atom, a hydroxyl group, a linear, branched, or cyclic alkyl group having 1-10 carbon atoms, a linear, branched, or cyclic alkoxyl group having 1-10 carbon atoms, or a t-butoxycarbonylmethoxy group, provided that two or more of the groups R^1 to R^5 are groups other than the hydrogen atom, two or more of the groups R^6 to R^{10} are groups other than the hydrogen atom, or two or more of the groups R^{11} to R^{15} are groups other than the hydrogen atom; and the groups R^{16} to R^{20} individually represent a hydrogen atom,

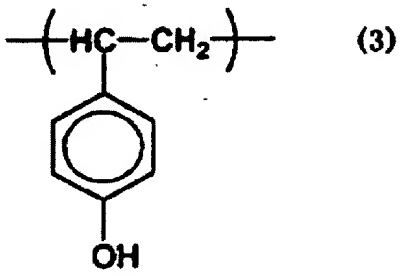
fluorine atom, or trifluoromethyl group, provided that at least one of the groups R^{16} to R^{20} is a fluorine atom or trifluoromethyl group, and

(B) a resin comprising a recurring unit shown by the following formula (2),



(2)

wherein R^{21} represents a methyl group or ethyl group, and R^{22} represents a linear, branched, or cyclic alkyl group having 1-6 carbon atoms, and a recurring unit shown by the following formula (3) [[.]]



(3)

2. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the structure represented by the formula (1-a) is at least one structure selected from the group consisting of 2,4-dimethylphenyldiphenylsulfonium cation, 2,6-dimethylphenyldiphenylsulfonium cation,

2,4,6-trimethylphenyldiphenylsulfonium cation,

2,4,6-triethylphenyldiphenylsulfonium cation,

2,4,6-tri-i-propylphenyldiphenylsulfonium cation,

2,4-di-t-butoxyphenyldiphenylsulfonium cation,

2,4-di-t-butoxycarbonylmethoxyphenyldiphenylsulfonium cation,

4-t-butoxy-2,6-dimethylphenyldiphenylsulfonium cation, and

4-t-butoxycarbonylmethoxy-2,6-dimethylphenyldiphenyl-sulfonium cation.

3. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the structure represented by the formula (1-b) is at least one structure selected from the group consisting of 4-fluorobenzenesulfonate anion,

2,4-difluorobenzenesulfonat anion,

2,6-difluorobenzenesulfonate anion,

2,3,4,5,6-pentafluorobenzenesulfonate anion,

4-trifluoromethylbenzenesulfonate anion,

2,4-bis(trifluoromethyl)benzenesulfonate anion,

2,4,6-tris(trifluoromethyl)benzenesulfonate anion, and

2,3,4,5,6-pentakis(trifluoromethyl)benzenesulfonate anion.

4. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the photoacid generator is a compound selected from the group consisting of

2,4-dihydroxyphenyldiphenylsulfonium

2,4,6-tris(trifluoromethyl)benzenesulfonate,

2,4-dimethylphenyldiphenylsulfonium

2,3,4,5,6-pentakis(trifluoromethyl)benzenesulfonate,

2,4,6-trimethylphenyldiphenylsulfonium

2,4-difluorobenzenesulfonate,

2,4,6-trimethylphenyldiphenylsulfonium

4-trifluoromethylbenzenesulfonate,

2,4,6-triethylphenyldiphenylsulfonium

4-trifluoromethylbenzenesulfonate,

2,4,6-tri-i-propylphenyldiphenylsulfonium

2,4-difluorobenzenesulfonate,

4-t-butoxy-2,6-dimethylphenyldiphenylsulfonium

2,3,4,5,6-pentafluorobenzenesulfonate, and

4-t-butoxycarbonylmethoxy-2,6-dimethylphenyldiphenyl-sulfonium

2,4,6-tris(trifluoromethyl)benzenesulfonate.

5. (Original) The radiation-sensitive resin composition according to Claim 1, further comprising a photoacid generator other than the component (A).

6. (Original) The radiation-sensitive resin composition according to Claim 5, wherein the photoacid generator other than the component (A) is at least one compound selected from the group consisting of onium salt compounds, sulfone compounds, sulfonate compounds, sulfonimide compounds, diazomethane compounds, and oximesulfonate compounds.

7. (Original) The radiation-sensitive resin composition according to Claim 5, wherein the photoacid generator other than the component (A) is at least one compound selected from the group consisting of diazomethane compounds and oximesulfonate compounds.

8. (Original) The radiation-sensitive resin composition according to Claim 1, wherein R^{22} in the formula (2) is a methyl group, ethyl group, or cyclohexyl group.

9. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the recurring unit represented by the formula (2) is a unit obtained by cleavage of a polymerizable unsaturated bond in at least one compound selected from the group consisting of p-(1-methoxyethoxy)styrene, p-(1-ethoxyethoxy)styrene, p-(1-methoxypropoxy)styrene, p-(1-ethoxypropoxy)styrene, and p-(1-cyclohexyloxyethoxy)styrene.

10. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the resin (B) comprises a recurring unit other than the recurring units represented by the formula (2) or formula (3).

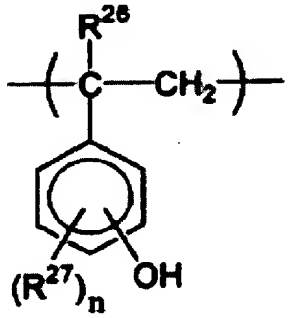
11. (Original) The radiation-sensitive resin composition according to Claim 9, wherein the recurring unit other than the recurring units represented by the formula (2) or formula (3) is a unit obtained by cleavage of a polymerizable unsaturated bond in at least one compound selected from the group consisting of styrene, α-methylstyrene, p-t-butoxystyrene, p-t-butoxycarbonyloxystyrene, p-t-butoxycarbonylmethyloxystyrene, p-acetoxystyrene, p-(2-t-butoxycarbonylethyloxy)styrene, t-butyl(meth)acrylate, isobornyl (meth)acrylate, tricyclodecanyl (meth)acrylate, 2-adamantyl-2-methyl (meth)acrylate, and 2-adamantyl-2-ethyl (meth)acrylate.

12. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the resin (B) is a resin having a structure partially cross-linked by a cross-linker.

13. (Original) The radiation-sensitive resin composition according to Claim 1, wherein the number of the recurring units represented by the formula (2) in the resin (B) is 5-90% of the total number of the recurring units represented by the formula (2) and the recurring units represented by the formula (3).

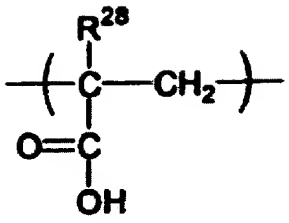
14. (Original) The radiation-sensitive resin composition according to Claim 1, further comprising an acid-dissociable group-containing resin other than the resin (B).

15. (Currently Amended) The radiation-sensitive resin composition according to Claim 14, wherein the acid-dissociable group-containing resin other than the resin (B) is a resin insoluble or scarcely soluble in alkali having a structure in which the hydrogen atom of an acidic functional group in an alkali-soluble resin having at least one recurring unit shown by the following formulas (6) to (8) is replaced by a substituted methyl group, 1-substituted ethyl group, 1-substituted propyl group, 1-branched alkyl group, silyl group, germyl group, alkoxycarbonyl group, acyl group, or cyclic acid-dissociable group,



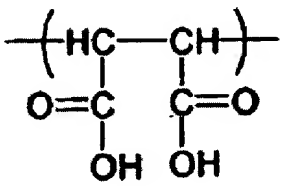
(6)

wherein R^{26} represents a hydrogen atom or a methyl group, R^{27} is a halogen atom or an organic group having 1-6 carbon atoms, and n is an integer of 0-3;



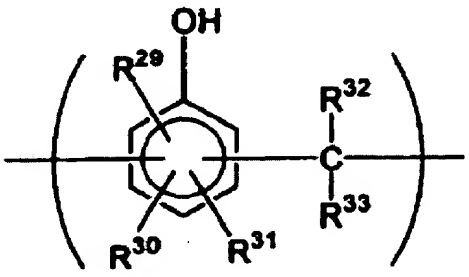
(7)

wherein R^{28} represents a hydrogen atom or a methyl group; and



(8)

16. (Original) The radiation-sensitive resin composition according to Claim 14, wherein the acid-dissociable group-containing resin other than the resin (B) is a resin insoluble or scarcely soluble in alkali having a structure in which the hydrogen atom of a phenolic hydroxyl group in an alkali-soluble resin having at least one recurring unit shown by the following formula (9) is replaced by a substituted methyl group, 1-substituted ethyl group, 1-substituted propyl group, 1-branched alkyl group, silyl group, germyl group, alkoxycarbonyl group, acyl group, or cyclic acid-dissociable group,

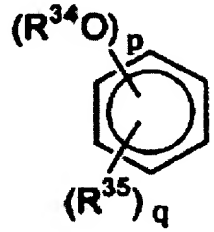


(9)

wherein R^{29}, R^{30}, R^{31}, R^{32}, and R^{33} individually represent a hydrogen atom or a linear or branched alkyl group having 1-4 carbon atoms.

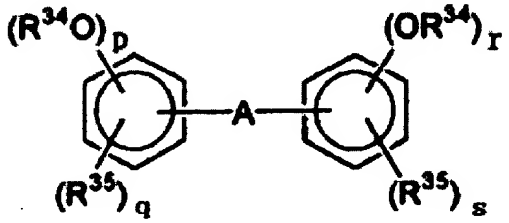
17. (Original) The radiation-sensitive resin composition according to Claim 1, further comprising a dissolution controlling agent.

18. (Original) The radiation-sensitive resin composition according to Claim 17, wherein the dissolution controlling agent is a compound shown by one of the following formulas (10)-(14):



(10)

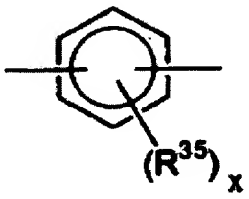
wherein R^{34} groups individually indicate a hydrogen atom or an acid-dissociable substituent, R^{35} groups individually represent a linear or branched alkyl group having 1-4 carbon atoms, a phenyl group, or a 1-naphthyl group, p is an integer of 1 or more, and q is an integer of 0 or more, provided that $p+q \leq 6$;



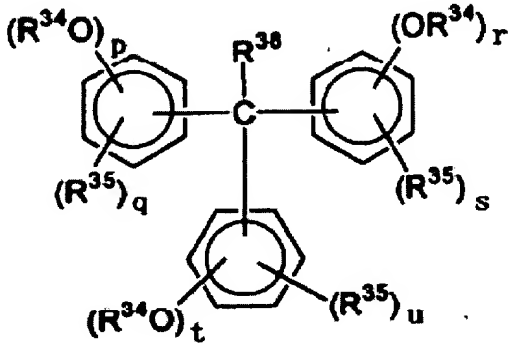
(11)

wherein R^{34} and R^{35} are the same as defined for the above formula (10), and A represents -O-,

-S-, -CO-, -COO-, -SO-, -SO_2-, -$C(R^{36})(R^{37})$-, wherein R^{36} and R^{37} individually represent a hydrogen atom, a linear, branched, or cyclic alkyl group having 1-6 carbon atoms, an acyl group having 2-11 carbon atoms, a phenyl group, or a 1-naphthyl group, or a group shown by the following formula,

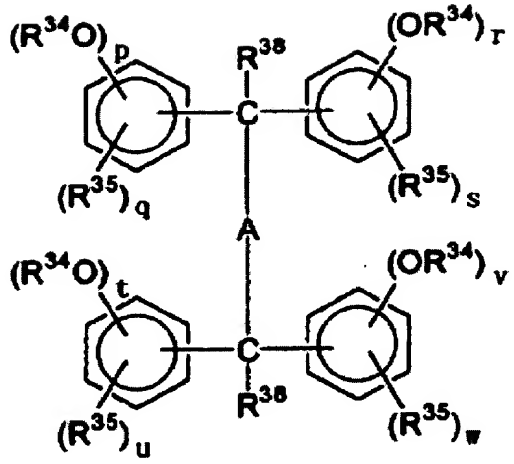


wherein R^{35} is the same as defined above and x is an integer of 0-4, and p, q, r, and s are integers of 0 or more, provided that $p+q \leq 5$, $r+s \leq 5$, and $p+r \geq 1$ are satisfied;



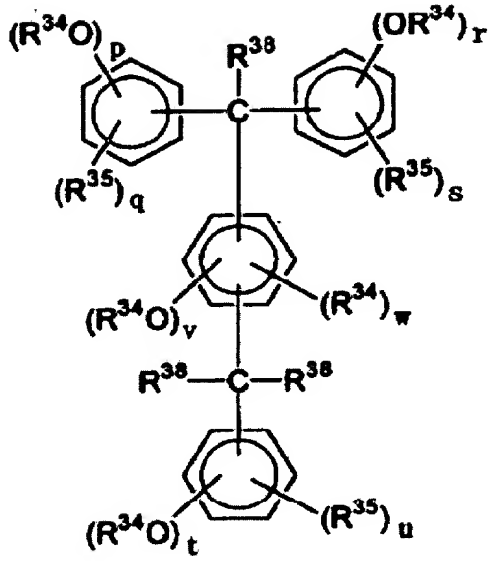
(12)

wherein R^{34} and R^{35} are the same as those defined in the formula (10), R^{38} represents a hydrogen atom, a linear or branched alkyl group having 1-4 carbon atoms, or a phenyl group, and p, q, r, s, t, and u are integers of 0 or more, provided that $p+q \leq 5$, $r+s \leq 5$, $t+u \leq 5$, and $p+r+t \geq 1$ are satisfied;



(13)

wherein R^{34} and R^{35} are the same as defined for the above formula (10), A is the same as defined in the above formula (11), R^{38} is the same as defined in the formula (12), provided that when two or more R^{38} groups as present, such groups may be either identical or different, and p, q, r, s, t, u, v, and w are integers of 0 or more, provided that $p+q \leq 5$, $r+s \leq 5$, $t+u \leq 5$, $v+w \leq 5$, and $p+r+t+v \geq 1$ are satisfied; and



(14)

wherein R^{34} and R^{35} are the same as defined for the above formula (10), R^{38} is the same as defined in the formula (12), provided that when two or more R^{38} groups are present, such groups may be either identical or different, and p, q, r, s, t, u, v, and w are integers of 0 or more, provided that $p+q \leq 5$, $r+s \leq 5$, $t+u \leq 5$, $v+w \leq 4$, and $p+r+t+v \geq 1$ are satisfied.

19. (Original) The radiation-sensitive resin composition according to Claim 1, further comprising an acid diffusion controller.

20. (Original) The radiation-sensitive resin composition according to Claim 19, wherein the acid diffusion controller is a nitrogen-containing organic compound.

21. (Original) The radiation-sensitive resin composition according to Claim 1, comprising at least one compound from the group consisting of propylene glycol mono-alkyl ether acetates, lactic acid esters, 3-alkoxypropionic acid esters, 2-heptanone, and cycloheptanone.